



ProTrack

Improve operating performance by proactively improving process controls across your industrial operations



ProTrack

Industry 4.0 Compliant & Cloud Based Control Loop Performance Monitoring

Challenge: Process control is at the foundation of industrial plant performance. Poorly controlled operations result in poor equipment performance, lower process yields and conversions, lower plant throughput and product qualities, and higher raw materials and energy consumption.

Solution: ProTrack is a cloud native application with powerful analytics and visuals that provides an aggregated view of control performance across one or more industrial operations. It enables centralized remote instrument and control maintenance work practices and was designed to help automation professionals identify the root cause of excess variability and support company work processes for improvement.

ProTrack Solution

Manage Control Loop Performance



Real-Time Monitoring: Visualize control loop or APC application performance in real-time with easy-to-use dashboards.



Centralized & Scalable: Drive centralized instrument and control maintenance work processes to quickly improve plant operating performance.



Simple Tracking: View aggregated figures from across your fleet of operations or drill into a single operating site from anywhere in your organization.



Actionable Intelligence: Easily identify common control loop problems, such as instrument or valve hardware, controller tuning, service factor, or operator actions.



Fast Easy Reporting: Setup custom views and generate reports with just a few clicks





The BlueMarvel Advantage Industrial Expertise Meets Digital Transformation

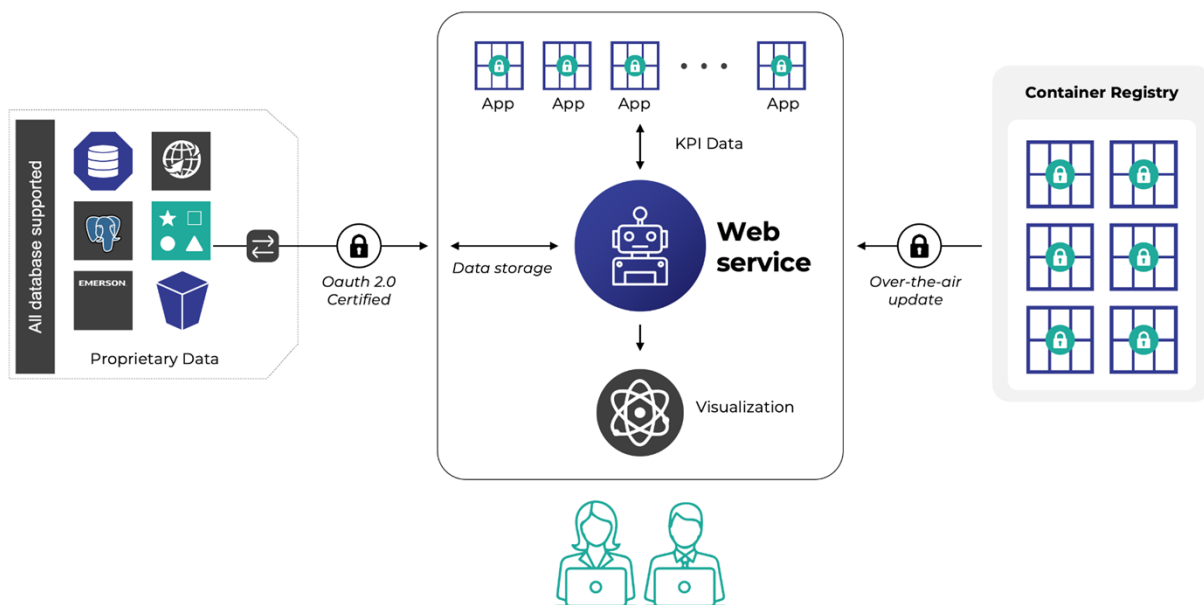
The Difference: Using modern IT, our solution has been developed by process control experts with decades of experience troubleshooting, tuning and optimizing industrial and manufacturing processes. Aligned with the guiding principles of Industry 4.0, all BlueMarvel applications are built using the latest modern information technology. Unlike legacy plant based software applications, our solution was conceived to scale from a single site with a few dozen loops to an entire enterprise managing dozens of operations and tens of thousands of control loops. It is well understood that significant maintenance costs can be eliminated by industrial companies by moving to centrally managed maintenance work practices for this asset class. Our modern application architecture reflects this thinking and philosophy.

Our solutions also offer custom-programmability alongside a suite of existing analytic functions allowing you to implement custom rules, KPI's and algorithms that fit meet specific corporate requirements. We can support deployments no matter where you are on your digitization journey. Our solution runs natively in the cloud and has been designed using cloud containers for easy deployment and set up. We also manage SAS deployments leveraging our BlueMarvel cloud and internal data consolidation infrastructure.

BlueMarvel Application Architecture ProTrack Microservices

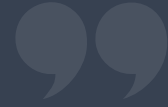


- Control hub facilitates KPI calculations, software updates, and data movement between different applications.
- Microservices infrastructure to maximize application uptime and allow for maintenance on separate services.
- Leverages your existing cybersecurity protocols to minimize data leakage risks.
- Application is stateless, guaranteeing your data integrity and provides flexibility on future usage of calculated KPIs.
- Customer managed authorization & authentication so you can control who has access to which data.
- Optional over-the-air updates whenever new versions of the software are available.





Control performance is at the foundation of good plant operating performance. Poor control impacts plant throughput & yields, product quality and energy efficiency



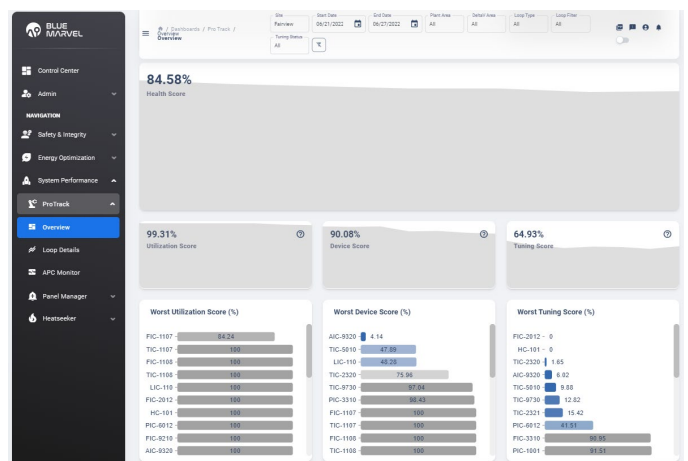
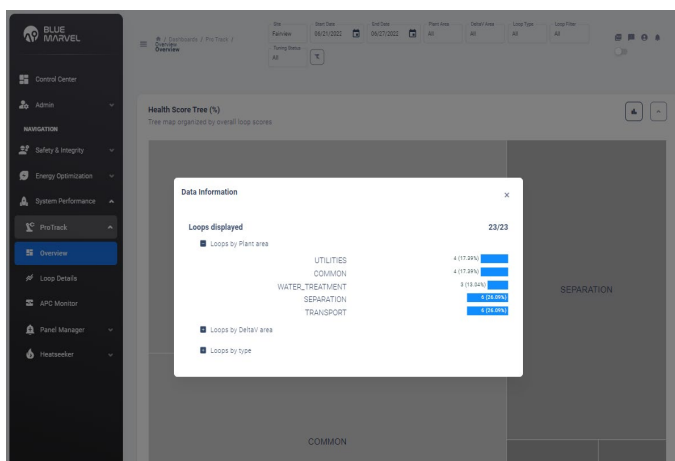
Protrack Benefits

Greater Plant Throughput and Lower Energy & Production Costs

- ✓ Identify control performance issues and address them quickly to ensure plant performance is sustained where it is most profitable.
 - ✓ Improve, monitor and sustain control performance measures - service factor, production variability, operator interventions and alarm scores.
 - ✓ Support corporate energy efficiency and emissions goals by ensuring the control of fired equipment and heat exchange networks are well tuned and maintained.
 - ✓ Leverage scarce process control subject matter expertise across your organization while lowering the cost of process control assets.
 - ✓ Enable centrally managed monitoring and maintenance work processes for process control.
- Improve Process Performance:
- ✓ Reduce quality variations by 30%
 - ✓ Reduce energy consumption by 5-10%
 - ✓ Increase plant throughput by 2-5%
 - ✓ Lower control maintenance costs up to 30%

ProTrack Dashboard

Showcasing Loops by Plant Area & Utilization, Device & Tuning Scores



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